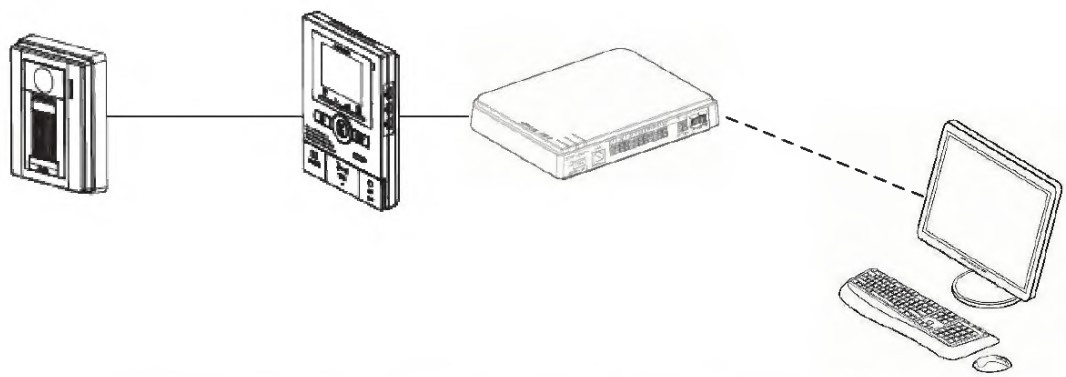
AIPHONE®

0410

# JKW-IP

IP Video Entry System

# QuikStart Guide



This is an abbreviated instruction manual for installation purposes.

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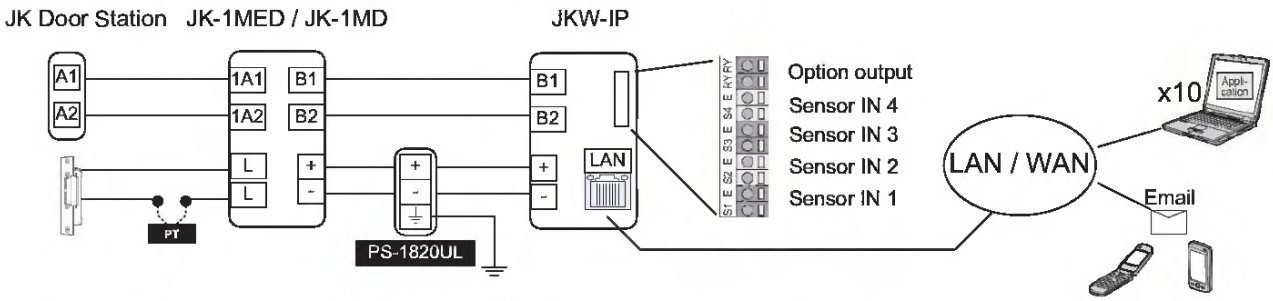
## 1 GENERAL DESCRIPTION AND WIRING

The JKW-IP and software combine to create a network door entry video intercom system. The JKW-IP adaptor is an addition to a single door, single master JK boxed set and allows up to 20 sets to be connected to up to 10 computers. The system allows for call-in to the PC via the JKW-IP software, two way audio and one way video communication between the door station and the PC, as well as the ability to activate a door or gate release mechanism.




## 2 SOFTWARE SYSTEM REQUIREMENTS

Your computer must meet the following system requirements to use the PC Application. For a complete list of precautions, notes on usage, and notices, please see the JKW-IP Operation Manual. Please refer to the JK-1MD or the JK-1MED instructions other specification requirements, such as cabling type and method.

| | |
|---|---|
| OS | 32-bit Microsoft Windows® XP (SP3),<br>32-bit Windows Vista® Ultimate/Home/Business/Enterprise(SP1) |
| PC system Requirements | Processor: 2 GHz or faster<br>System memory (RAM): 1 GB RAM or more<br>Hard disk: 10 MB or more (additional space is needed for recording)<br>Sound card: 8-bit full duplex, Direct Sound compatible<br>Display: 1024 x 768 or greater<br>Run-time: Microsoft(R).NET Framework 2.0 or later<br>Network: 10BASE-T/100BASE-TX Ethernet |
| Protocol | TCP/IPv4, UDP/IPv4, SIP, Others |
| Network bandwidth | 320 k to 8 Mbps (per IP Video Intercom Adaptor) |
| Language | English, French, Spanish, German, Dutch, Italian, Japanese |
| Browser | Internet Explorer 6.0 or later (with Internet Options SSL 3.0 enabled) |

Note: Windows is the registered trademark of Microsoft Corporation in the United Sates and other countries.

## 3 SPECIFICATIONS

| | |
|---|---|
| Power | 18VDC, Shares power with the JK master monitor |
| Current consumption | Standby 110 mA, Maximum 200 mA |
| Communication | Hands-free / Priority transmission |
| Image Format | JPEG |
| Image Resolution | 320×240 (QVGA) |
| Network Interface | 10BASE-T/100BASE-TX Ethernet |
| Network Protocol | TCP/IP, UDP/IP, SIP |
| Email Authentication | CRAM-MD5 hash, or CLEAR (unencrypted). Does not support SSL authentication. |
| Network Bandwidth | 320 K to 8 Mbps (per IP Video Intercom Adaptor) |
| Operating Temperature | 0°C to 40°C (+32°F to +104°F) |
| Dimensions | 200 (H)×150 (W)×35.5 (D) mm<br>7-7/8 (H) x 5-15/16(W) x 1-7/16 (inches) |
| Weight | Main Unit: Approx. 370 g (0.82 lbs) |
| Color | White |

Note: The PC Application is protected by intellectual property rights owned by International Systems Research Co.



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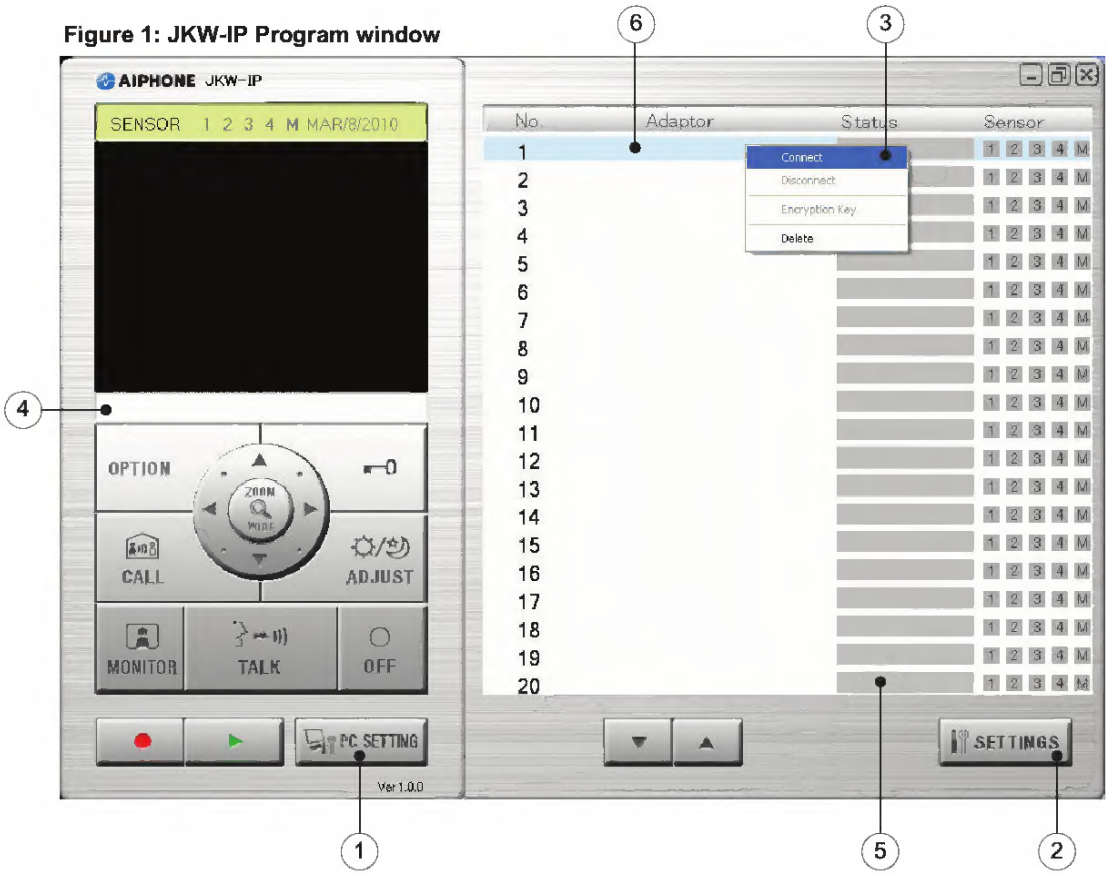
## 4 BASIC OPERATIONS AND TERMINOLOGY

**Figure 1: JKW-IP Program window**




The most important features of the JKW-IP Program window are: (*See Operations on pages 6 & 7 for details*)

1. The **[PC Setting]** button (below OFF button), with PC specific volume level controls, configuring basic program responses to events and enables automatic recording of video and audio.
2. The **[Settings]** button (lower right), which launches the web interface for a selected adaptor. Use this to configure an adaptor's network settings, download an Encryption Key, or update the email address it sends alerts to.
3. The **right-click drop down menu**, which allows you register the adaptor to tell the software how to find it, or match an Encryption Key (downloaded from Settings) to enable the door release feature.
4. The **Message display** will communicate important events and the adaptor ID involved.
5. The **Status display** will communicate the status of each adaptor from the computer's point of view.
6. The **Adaptor display** contains a list all connected adaptors currently registered with the computer running the JKW-IP software.

## 5 INSTALLATION

Step 1: **Determine desired network settings for adaptors and complete the Configuration Table.** Use the Configuration Table (see *page 8*) to help gather information about the network and acquire an IP address and appropriate subnet mask for each adaptor, and any changes to the default gateway (default 192.168.0.30), web port (default 443), and connection port (default 5060) that must be made before connecting to the network (in most networks those defaults are fine).

Since the default subnet mask for the adaptor is 255.255.255.0, **you will need to set your computer's IP address to 192.168.0.100** (or any other valid Host address for that subnet) **and the subnet mask to 255.255.255.0 and disable all firewalls before proceeding to step 2.**



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Step 2: **Configure each adaptor.** Using a computer and an unmanaged switch, log in to each adaptor one at a time using a web browser pointed to **https://192.168.0.30** and click [OK] or [YES] for the any Security Alert messages, then use the default Admin ID "aiphone" and Password "aiphone". In the Admin tab do the following (See *Figure 2, below "Web Interface, Admin tab"*)

a. Click on the [Setting] button next to Administrator Registration to change the Admin ID and Password (highly recommended).

b. Click on the [Setting] button next to User Registration to add up to 9 User IDs and Passwords (it is highly recommended to add at least 1 User ID and Password).

c. Click on the [Setting] button next to Email to enter an originating email address and mail server settings the adaptor will send an email **from** whenever a door call, sensor detection, or system start up occurs. Optional (Some email providers are not supported).

d. Click on the [Setting] button next to Sensor IN / Option OUT to configure the inputs to be N/O or N/C and the Output duration to anything from 0 (momentary) to 600 seconds (Optional).

e. Click on the [Setting] button next to Network and change the IP address, subnet mask and ports as needed, Update Encryption Key File, change the name, and video settings. **Required, (See Figure 3 to the right "Network Settings").**

Click the [Save] button and then the [Reboot] button to restart the adaptor (this will take up to 2 minutes) and repeat these steps with the next adaptor until every adaptor has a unique IP address and valid subnet mask as determined in Step 1.

Step 3: **Register each adaptor**. Install JKW-IP software on an Admin or User PC, using the supplied CD or download it from http://www.aiphone.com, and update the computer's IP address and subnet mask to match the adaptors' subnet as needed.

The software needs to know how to reach the adaptors, and needs to have the Connection password to connect and communicate. To register an adaptor to connect and communicate with the JKW-IP software:

a. **Right-click** the name of the adaptor and choose **Connect** from the drop down menu (see *Figure 1 on page 3 "JKW-IP Program window"*).

b. Provide IP address, Connection password (default is "aiphone"), and an Admin **or** User ID and password (see *Figure 4 to the lower right "Adaptor Registration"*).

Click [Save] and repeat for each adaptor and each computer (see "Advanced Installation Techniques" section on page 8 for a method of copying these settings to other PCs).

**Figure 2: Web Interface Admin tab**

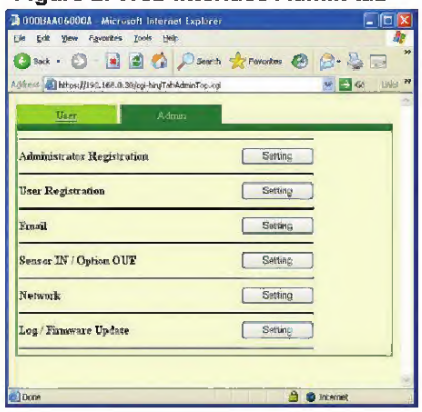


**Figure 3: Network settings**

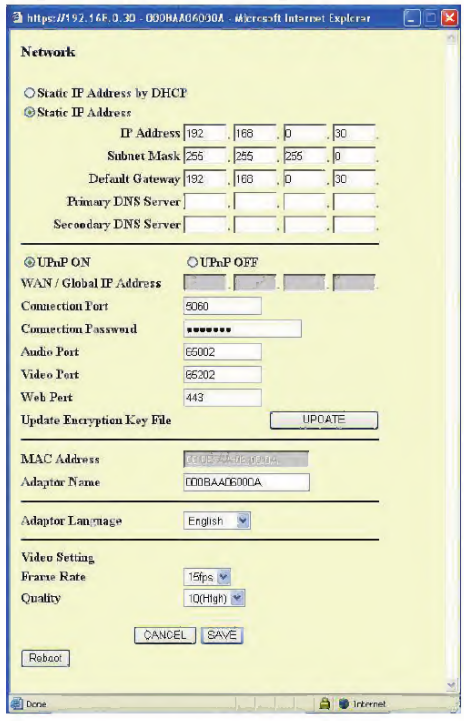


**Figure 4: Adaptor Registration**

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Step 4: **Open ports on PC firewall (Optional).** If the software displays a 'placeholder picture' when a door calls in (see *Figure 5 to the right "Placeholder picture"*), instead of the video from the door station, then there may be high latency or a firewall in place that is blocking the data. Most firewalls will automatically allow SSL (port 443) and open ports specified in Step 3 (defaults are 20100, 30100, and 40100) for UDP traffic, but it may be necessary to manually configure the firewall to allow traffic on these ports.

**Figure 5: Placeholder picture**

Step 5: **Encryption Key**. The Encryption Key is a file downloaded from the JKW-IP that allows Connected Users to unlock the door through the JKW-IP software. The JKW-IP software should show a gray square for the status icon for every adaptor for which the encryption key has not been set (see *Figure 9 on page 6 "Status display messages"*). To set a computer's encryption keys to allow a user to unlock the door or trigger the adaptor's Option output, do the following for each computer and each adaptor:

a. Select an adaptor from the Adaptor display list that needs an Encryption Key or to update one if it has been updated by an Admin.

b. Log in using the SETTINGS button and accept any security warnings (wording varies by browser version). If prompted enter a valid Administrator or User ID and Password.

c. In the User tab, next to the Encryption Key Down Load click the [Download] button (see *Figure 6 to the right, "Web Interface, User tab"*).

d. Choose a memorable destination location on the user's hard drive and click [SAVE].

e. In the JKW-IP program's window, right click the adaptor in the Adaptor display and choose the Encryption Key option from the drop down menu (see *Figure 1 on page 3 "Aiphone JKW-IP"*).

f. Click the [……] button and navigate to the location saved in step "d" and choose the file and click [SAVE] button (see *Figure 7 to the right "Encryption Key dialog"*).

**Figure 6: Web Interface, User tab**

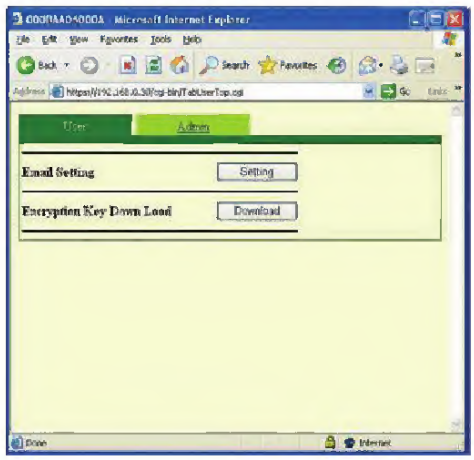
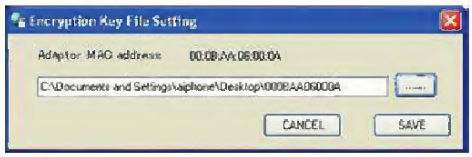



**Figure 7: Encryption Key dialog**

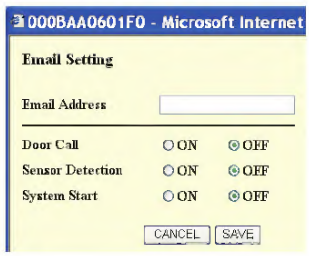



Step 6: **Destination Email**. To specify which email the adaptor will send to:

**Figure 8: Email Setting window**

a. Select an adaptor from the Adaptor display list in the JKW-IP program window and click the SETTINGS button and accept any security warnings. If prompted enter valid Administrator or User ID and Password.

b. Press the [Setting] button next to Email Setting (See *Figure 6 to the right "Web Interface, User tab"*). Specify the email address and whether the adaptor should send an email for a Door Call, Sensor Detection, or System Start event (see *Figure 8 to the right "Email Setting window"*).



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The JKW-IP software has the following operations:

1. Answering a call from the door station, Door release and camera controls
2. Option Output from JKW-IP hardware adaptor
3. Computer to JK-1MD/1MED Master communication
4. Door station monitoring
5. Sensor Detection from Connected Equipment
6. Recording and Playback of A/V from a door station.

### 6.1 Answering a call from the door station

When the call button on a JK door station is pressed, the following occurs: (See *Figure 1 on page 3 "JKW-IP Software window"*).

a. The call tone sounds, unless disabled in PC SETTING window (*See Figure 12 on page 7 "PC Settings window"*).

b. The image from the door station is displayed on the JKW-IP application main screen (unless another conversation is taking place). The image will display until it is answered and switched [OFF] or it will time out after about 45 seconds.

c. The status icon in the Status display will change to a red square and a message will read "1 CALL DOOR" the number indicating the order of calls if multiple calls are placed within a short time. (*See Figure 9 top right "Status display messages"*)

d. A message will appear in the Message display will read: <Adaptor Name> CALLING FROM DOOR <Door station No.> (*See Figure 10 to the right "Message display list"*)

When this occurs, the following operator interactions are available:

- **Talk** - The master station or any computer can answer the door by clicking the [Talk] button, the computer operator that does so gets can speak to the guest hands-free. Holding down [Talk] when answering will force it into a "push to talk and release to listen" mode. The status light will change to green, the status will read "COMMUNICATION" but other operators will see it return to Standby and the video cease, indicating it has been answered or cancelled.
- **Display Adjustments** - The Zoom/Wide, Adjust, and Pan and Tilt arrows become available for use while the image is displayed.
- **Manual recording** is available, (*See page 7 section 6.6 for details*).
- **Door Release** - To release the door, click the (Key) button.
  NOTE: If the Encryption Key has not been set or if the door release button does not turn red when you press it, follow *Step 5 on page 5* to download and match a new Encryption Key.
- **Off** - When the conversation is complete, click [OFF] to return the door station back to Standby so it is ready for the next guest.

### 6.2 Option Output from the JKW-IP adaptor

At any time, select an adaptor from the Adaptor display and press the [OPTION] button to trigger the option output.

NOTE: If the Encryption Key has not been set or if the [OPTION] button does not turn green when you press it, follow *Step 5 on page 5* to download and match a new Encryption Key.

**Figure 9: Status display messages**

| Color | Comment | Description |
|---|---|---|
| Red | 1 CALL DOOR | Displayed when there is a call from the door station |
| Green | COMMUNICATION | Displayed during communication |
| Green | MONITOR | Displayed during monitoring |
| Orange | 1 CALL ROOM ST | Displayed when there is a call from the master monitor station |
| Orange | CALL | Displayed when there is a call from the PC Application |
| Gray | <No display> | Encryption key not acquired (During standby) |
| Blue | <No display> | Displayed during standby |

**Figure 10: Message display list**

| Message List |
|---|
| <Adaptor Name> |
| <Adaptor Name> CALLING FROM DOOR <Door station No.> |
| <Adaptor Name> DOOR <Door station No.> COMMUNICATING |
| <Adaptor Name> DOOR <Door station No.> MONITORING |
| CALLING TO ANOTHER ROOM ST |
| <Adaptor Name> CALLING FROM ANOTHER ROOM ST |
| <Adaptor Name> COMMUNICATING WITH ANOTHER ROOM ST |
| <Adaptor Name> EXTERNAL INPUT |
| <Adaptor Name> EXTERNAL INPUT <No.> |
| <Adaptor Name> CALLING TO ANOTHER ROOM ST |
| <Adaptor Name> SYSTEM IS IN USE |

**Figure 11: User Controls**

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### 6.3 Computer to Master communication

The JKW-IP software and the physical JK-1MD/JK-1MED master stations can communicate via an intercom feature, also called Room to Room calling or Computer to Master calling.

The following occurs when **receiving** a **call**

a. The call tone sounds, no image is displayed (the camera door station is not involved).
b. The status icon in the Status display will change to an orange square and a message will read "1 CALL ROOM ST".
c. A message will appear in the Message display that will read <Adaptor Name> CALLING FROM ANOTHER ROOM ST

The [Talk] button is then available, click to start a conversation, if ignored the system will eventually time out. Press [OFF] to end the conversation.

To **place** a **call**, select the adaptor whose Master you wish to communicate with and press the [Call] button. If none are selected, the pre-tone will go out to every master, and the first JK-1MD/JK-1MED master to push their Talk button will be able to communicate. Press [OFF] to end the conversation.

### 6.4 Entrance monitoring

The JKW-IP software can monitor a door station without first being called. Select an adaptor from the Adaptor display and then click the [Monitor] button. The JKW-IP software will display video, receive audio from the door station, and the status icon and Message displays will reflect the station's Monitor status. Press [TALK] to talk and press [OFF] to end monitoring and return to Standby.

### 6.5 Sensor Detection from Connected Equipment

When the Sensor input receives a change in state, the following occurs:

a. The Sensor Detection Tone plays, unless turned off in the PC SETTING window, and the status icon for the input will turn blue for 30 seconds or until it is turned [OFF].
b. The Message display will read <Adaptor Name> EXTERNAL INPUT <No.> for 30 seconds.

### 6.6 Recording and Playback

Settings for recording can be adjusted in the PC Settings window (*See Figure 12 to the right "PC Settings window"*).

**Automatic Image Recording** - When a call is received from a door station, the door station images are recorded automatically, unless the JKW-IP software is currently in conversation with another door station. When communication starts or the call ends, the automatic recording stops.

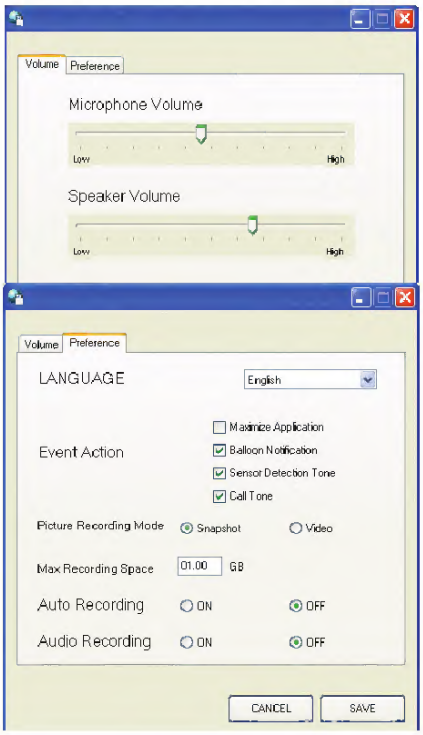
**Automatic Video Recording** - When a call is received from a door station, the door station's video is recorded if enabled in the PC SETTING window. Video recording stops when the call is answered and when the call ends (*see Figure 5 on page 5 "PC Settings window"*).

**Manual Image Recording** – While communicating with a door station, press the (Record) button. The program will record one image every time it is pressed.

**Manual Video Recording** – While communicating with a door station, press the (Record) button. Recording will continue until the conversation or monitoring ends and the adaptor goes back into Standby.

**Playback** – While the JKW-IP program is in Standby, press the (Play) button, which opens a window allowing the operator to select an Adaptor and view recordings.

**Figure 12: PC Settings window**



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## 7 ADVANCED INSTALLATION TECHNIQUES

After the Adaptor display is complete for the first computer, a file will be created in the \Aiphone_JKW\ directory entitled "Adapter.config". This file contains all the IP address locations of each adaptor and all the connection settings and Admin User IDs and passwords, and it can be copied to another computer or otherwise backed up in a secure location. Copy the file after installing the software to a computer, but before launching the software to save several steps in Step 3 on page 4. You can modify the file by launching the program and making any changes for that computer, such as changing the Admin ID to a User ID.

## 8 TECHNICAL PRECAUTIONS AND TROUBLESHOOTING

Cleaning: Clean the units with a soft cloth dampened with a neutral household cleanser. Do not use an abrasive cleanser or cloth.
If you experience difficulties with the device, try turning the JKW-IP off and wait 15 seconds. Turn it back on and wait a full minute for it to finish its power on cycle.

| Light | Activity | Meaning | Light | Activity | Meaning | Light | Activity | Meaning |
|---|---|---|---|---|---|---|---|---|
| **LAN ACT** | Lit | Normal | **STATUS** | Lit | Normal | **POWER** | Lit | On |
| (orange) | Blinking | Acquiring IP | (orange) | Blinking | Starting Up | (green) | Blinking | Abnormal |
| | Off | Bad Connection | | | | | Off | Off |

## 9 CONFIGURATION TABLE

| Setting Name | Default setting | Adaptor ID 1 | Adaptor ID 2 | Adaptor ID 3 | Adaptor ID 4 | Adaptor ID 5 |
|---|---|---|---|---|---|---|
| Adaptor's Name / MAC | MAC Address | | | | | |
| **IP Address** | **192.168.0.30** | | | | | |
| Subnet Mask | 255.255.255.0 | | | | | |
| Default Gateway | 192.168.0.30 | | | | | |
| Connection Port | 5060 | | | | | |
| Connection Password | aiphone | | | | | |
| Web Port | 443 | | | | | |
| Admin User ID | aiphone | | | | | |
| Password | aiphone | | | | | |
| User ID | | | | | | |
| Password | | | | | | |
| (User tab) Email Setting | | | | | | |


**WARRANTY**

Aiphone warrants its products to be free from defects in material and workmanship under normal use and service for a period of one year after delivery to the ultimate user. We will repair free of charge or replace at no charge Aiphone product, that upon examination by an Aiphone Repair Technician is proven defective and under warranty. Aiphone reserves the right to make the final decision whether there is a defect in materials and/or workmanship; and whether or not the product is within the warranty.
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Aiphone Communication Systems
1700 130th Ave. N.E.
Bellevue, WA 98005
(425) 455-0510
FAX (425) 455-0071

**TOLL FREE TECHNICAL SUPPORT:**
PHONE: (800) 692-0200
E-MAIL: tech@aiphone.com
WEB: http://www.aiphone.com





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